

The background of the slide is a close-up of the American flag, showing the stars and stripes. A small, gold-colored metal figurine of a castle with three towers is placed on the right side of the slide.

# ***Developing & Maintaining Our Water Resources Infrastructure: Today and in the Future***

**National Hydropower Conference**

**Gary A. Loew**  
***Chief, Civil Works***  
***Programs Integration Division***  
***U.S. Army Corps of Engineers***

***14 May 2008***



# *Civil Works Value to the Nation*

## **US Army Corps of Engineers®**

**Recreation areas**  
376 M Visitors/yr  
Generate \$15 B in  
economic activity,  
500,000 jobs



**400 miles of  
Shore protection**  
Destination for  
75% of U.S.  
Vacations



**3% of Nation's  
Electricity: \$500 M  
+ in power sales**



**11,000 miles of  
Commercial Inland  
Waterways:  
½ the cost of rail  
1/10 the cost of  
trucks**



**8,500 Miles of  
Levees**

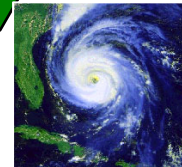


**299 Deep Draft  
Harbors**



**627 Shallow Draft  
Harbors**

**12 Emergency  
Responses**



**Stewardship of  
11.7 Million Acres  
Public Lands**

**Environmental  
Restoration**



**100,000 permits  
Most in 14 days**

- **US Ports & Waterways convey > 2B Tons Commerce**
- **Foreign Trade alone creates > \$160 B Tax Revenues**

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# ***FY08 Accomplishments***

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- **NAVIGATION**

- Maintained 25,000 miles of navigation channels
- Transported 95% of Nation's foreign commerce (2.2 B tons)
- Maintained 240 lock chambers at 195 sites
- Dredged and disposed of 211 million cubic yards
- Progressed on rehab of 14 lock & dam projects

- **FLOOD RISK MANAGEMENT**

- Prevented \$18.5 billion in flood losses annually for past 5 years
- An average return of 6:1 on flood damage reduction projects
- Implemented Dam & Levee Safety Programs

- **ENVIRONMENTAL STEWARDSHIP**

- Restored 18,000 acres of habitat
- 90% is nationally significant



- **WATER SUPPLY**

- Provided 9.8 mil acre-feet of water from 136 projects in 25 states
- 14% of Nation's personal household needs

- **FUSRAP**--Excavated 185,600 cubic yards of contaminated material

- **EMERGENCY RESPONSE**

- Responded to 12 FEMA disasters in 20 states

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# *More FY08 Accomplishments*

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- **CONSTRUCTION COMPLETIONS**

- Placed 8 projects into service; 70 since 2001

- **REGULATORY**

- Processed 100,000 permits in average time under 60 days
- 5,500 individual permits in average 220 days
- 85,000 general permits in average of 35 days
- Replaced 18,000 acres impacted with 36,000 acres of mitigation land

- **RECREATION**

- Hosted 360 million visitor-days at Corps projects
- Supported 100 mil fishing, 9 mil hunting & 63 mil wildlife watching visits at Corps projects
- Assisted with recovery of 53 species at 133 projects
- 1,800 recreation sites (41%) operated by others

- **HYDROPOWER**

- 75 Corps/67 NonFed Plants
- 75 billion kilowatt-hours
- 14% of personal household energy requirements
- ~\$1 billion repaid to Treasury
- Completed rehab of two powerhouses in Georgia & Alabama

- **EXPEDITIONARY FORCE**

- 800 employees deployed in 4 overseas Districts

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# ***FY09 Civil Works Budget***

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- Supports President's Overall Budget Priorities:
  - Address Immediate Economic Challenges
  - Ensure Sustained Prosperity
  - Keep America Safe
  - Balance the Budget by 2012
- Supports Mission Priorities
  - Commercial Navigation
  - Flood & Coastal Storm Damage Reduction
  - Aquatic Ecosystem Restoration





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# ***Budgets & Appropriations***

	FY06	FY07	FY08	FY09
	<u>\$ Millions</u>			
Investigations	95	94	90	91
Operation & Maintenance	1,979	2,258	2,471	2,475
Construction	1,637	1,555	1,523	1,402
Mississippi River & Tribs.	270	278	260	240
Regulatory Program	160	173	180	180
Flood & Coastal Emergencies	70	81	40	40
F.U.S.R.A.P.	140	130	130	130
Expenses	162	164	177	177
ASA(CW)	0	0	0	6
<b>Total Budget Request</b>	<b>4,513</b>	<b>4,733</b>	<b>4,871</b>	<b>4,741</b>
<b>Appropriation</b>	<b>5,329</b>	<b>5,340</b>	<b>5,592</b>	
<b>Appn &gt; Budget</b>	<b>+816</b>	<b>+607</b>	<b>+721</b>	<b>+851</b>

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## ***Four FY05-7 Emergency Supplementals***

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<b>Approp</b>	<b>\$ Millions</b>	<b>Four Bills</b>
FCCE	\$7,169.0	P.L. 109-62 (FY 05)
GI	48.8	P.L. 109-148 (FY 06)
CG	687.3	P.L. 109-234 (FY 06)
O&M	533.7	P.L. 110-228 (FY 07)
MR&T	153.7	
GE	1.6	
<b>TOTAL</b>	<b>\$8,594.1</b>	



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## ***FY09 Budget by Business Line***

<b>BUSINESS LINE</b>	<b>FY09 BUDGET (\$000)</b>
NAVIGATION	\$1,892,000
"FLOOD RISK MANAGEMENT"	1,322,000
ENVIRONMENT	511,000
<b>HYDROPOWER</b>	<b>319,000</b>
RECREATION	270,000
EMERGENCY MANAGEMENT	58,000
REGULATORY	180,000
WATER SUPPLY	6,000
<u>MANAGEMENT &amp; OVERSIGHT</u>	<u>183,000</u>
<b>TOTAL</b>	<b>\$4,714,000</b>
SUPPORT FOR OTHERS	\$4,000,000

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## ***Budget Arithmetic – FY09***

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**FY08 Civil Works Budget Ceiling** **\$4,800 mil**

Allocate GE, REG, FCCE, REC, FUSRAP... - 900

Allocate Base O&M (~75% of required) - 1,800

Essential Dam Safety - 500

Assign National Priorities - 400

Continuing Construction at Base Level - 700

Planning Studies - 100

Minimum Essential Allocation = **- \$4,400**



Left for all other CW Projects & Programs ~**\$400 mil\***

Use the \$400 mil to restore project O&M to prior year levels

**THAT'S IT!**

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# ***FY09-13 Five Year Plan "Enhanced Plan"***

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- Completions and new funding
  - ~ 35 project completions in next 5 yrs
  - ~ \$360 mil 'wedge' funds (from completions) for new projects
- Projects in the queue to be started
  - ~ 9 Cat 1 projects with BCR > 3:1
  - ~ 80 Cat 2 projects with favorable Admin position, < 3:1
  - ~ 130 Cat 3 projects without favorable Admin position
- Required-\$19 bil to complete ongoing, budgetable projects; \$38 bil to complete all ongoing, incl Cong Adds
- Few, if any, new starts projected





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# ***Future Budget Challenges***

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**Dam Safety**



**Major Rehabilitation  
of Infrastructure**



**Levee Safety**



**No \$ for New Projects**



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# ***Program Development & Management Challenges***

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- **Total \$ Relative to Authorized projects**
- **Late Appropriations**
  - Budget vs Appropriations Gap
  - Jan Appropriations = Feb Work Allowances = March Schedules
  - Excessive Carryover
- **Continuing Contracts**
- **Systems Budgeting**
- **Earmarks**
- **Refining and Incorporating Alternative Metrics**
  - Tonnage
  - Risk to Life
  - Watersheds
  - Environmental Restoration Significance Evaluations
- **Growth & Crowding Out**
  - Dam Safety
  - Endangered Species Act Biological Opinions (ESA BiOps)
  - Rehabilitations and Upgrades of Existing Projects



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# TRENDS TO WATCH

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- **Continuing Pressure on Budget**
  - **Entitlement Programs**  
( Medicare, Medicaid, Social Security)
  - **Interest on the National Debt**
- **Cost of Infrastructure Recapitalization**
  - **Improved Inspection Techniques**
  - **Modern Design Standards**
  - **Cost of meeting ESA and other legal requirements**
- **Cost of Construction**
  - **Fuel, Steel, Concrete**
  - **Expanding worldwide demand**







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FRANK AND ERNEST BOB THAVES



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## ***Future Budget Initiatives***

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- Harbor Maintenance Trust Fund  
(potential revenue increase ~\$5-700 M)
- Inland Waterways Trust Fund (potential increase ~\$150 M)
- Direct Funding of Hydropower  
(potential increase ~\$100 M)
- Private Equity Partnerships--?????

**Benefits: Assured revenue; future  
planning & budgeting certainty**



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## *Future Hydropower Funding Options*

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- **Continue As Is**
  - To Include Customer Funding
- **Improved Justification & Support**
- **Direct Funding (SWPA, SEPA, WPA)**
- **Public-Private Equity Partnership**



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# *Improved Justification Southwest Regional Hydropower Initiative*

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- Regional Fed-NonFed partnership
- Programmatic justification-26 plants for 20 yrs
- Prioritized Rehab for all plants
- Fully funded for 20 years--~\$720 mil
- Peak requirement ~\$60 mil/yr for ~6 yrs
  - ~2 plants in study and 5 in PED/Construction in any one year
- ~10 years time savings and ~\$125 mil study and construction savings (@3.5% inflation)

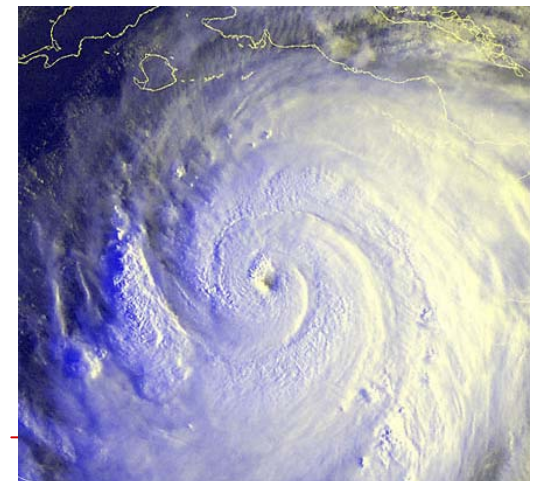


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# ***Civil Works Strategic Goals***

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1. Build and protect resilient communities and infrastructure
2. Plan and manage sustainable water resources for future generations
3. Protect and restore healthy ecosystems
4. Ensure effective and adaptive project performance
5. Seek and reflect excellence



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# ***How Can We All Contribute?***

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- **USACE Leadership:**
  - Develop vision, goals & objectives in an open, collaborative way
  - Be “Thought Leaders” Lead the discussion to create the solutions.
  - Implement the Strategic Plan
- **Administration:**
  - Listen
  - “Walk the performance-based budget talk.”
- **Stakeholders:**
  - Contribute to vision, Goals, Objectives, Metrics
  - Communicate!
    - Adopt the Vision to be the desired future state of water resources development
    - Create national desire for a water resources infrastructure that will serve this Nation’s economic, quality of [all] life and defense needs, today and into the future.
    - Support the budget/financing that enables the vision

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The background of the slide is a close-up of the American flag, showing the stars and stripes. In the lower right corner, there is a small, golden toy castle with multiple towers and a central archway.

# ***The Future of America's Water Resource Infrastructure***

- **National impact is significant**
- **“Whether you think you can or you can't, you're usually right”  
Henry Ford**



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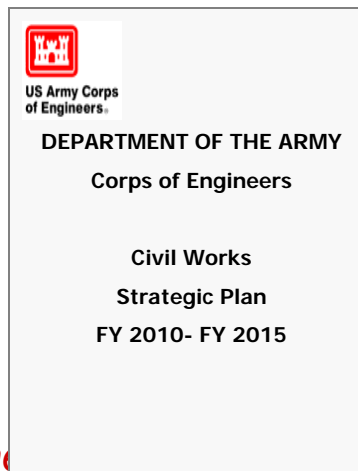
# *Emerging Strategic Requirements*

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- Broader systems approaches
- Consideration of interacting technical, human, organizational & social factors
- Risk-based decision support tools & skills
- Much broader coalitions & collaboration
- Increased public-private partnerships
- Anticipatory engineering



FEMA



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# ***WRDA 2007***

Public Law 110-114 [121 Stat. 1041], Nov. 8, 2007

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- 600 policy provisions
- 900 new projects
- *Principles & Guidelines* revision
- Independent peer review of USACE studies
- Value \$22 bil (~\$7 bil for New Orleans area)
- **Title I** 46 New projects w/Chiefs Reports; 145 CAP
- **Title II** Policy: Indep Peer Review; P&G; Watershed Plng
- **Title III** Project specific modifications; 46 deauthorizations
- **Title IV** 87 specific studies; 14 programmatic studies
- **Title V** New projects and modifications
- **Title VI** Everglades
- **Title VII** Louisiana Coastal Area
- **Title VII** Upper Miss and Illinois River Waterway System
- **Title IX** National Levee Safety Program

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# ***FY 09 Appropriations: Legislative Initiatives***

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- Reaffirm and modify FY08 Appropriations Reprogramming Rules
- Replace continuing contracts with Multi-Year contracts with thresholds
  - Separate authorization required for contracts over \$100 M & notification with waiting period required for any multi-year contracts with contingent liability over \$20M.
- Barge User Fees for inland transportation cost recovery to be deposited into the Inland Waterways Trust Fund (IWTF)
- Authorize Louisiana Hurricane and Storm Damage Risk Reduction Project, New Orleans, and appropriates \$5.671 bil in supplemental appropriation



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